

National Pollutant Discharge Elimination System (NPDES)

Program Goals

The National Pollutant Discharge Elimination System (NPDES) permitting mechanism requires the implementation of controls designed to carry out the objective of the Clean Water Act (CWA), which is to restore and maintain the chemical, physical and biological integrity of the Nation's waters. NPDES regulations are intended to manage discharges that are defined as point source discharges under the CWA, such as municipal and industrial wastewater sources, and since 1987, stormwater sources.

Regulatory Authority

Mandated by Congress under the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) is delegated to the state of Washington for implementation. The Department of Ecology (Ecology) is responsible for issuing NPDES permits for municipal stormwater discharges, as well as for construction and industrial-related discharges. Consistent with federal regulations, Ecology will issue NPDES stormwater permits to municipalities and other regulated dischargers in two separate phases: 1) re-issuance of NPDES Phase 1 permits (originally issued in 1995 and 1999) to the 7 current Phase 1 permittees, and 2) issuance of permits to all of the jurisdictions throughout the state that are required to comply with the Phase 2 regulations.

Program Policies

The NPDES Phase 1 stormwater program requires permits for stormwater discharges from:

- "Medium" and "large" municipal separate storm sewer systems (MS4s) generally serving cities or unincorporated portions of counties with populations of 100,000 or more people; and
- Eleven categories of industrial activity, one of which is construction activity that disturbs five acres or greater of land.

In July 1995, Ecology issued NPDES general permits to regulate municipal stormwater discharges. These permits require development and implementation of comprehensive stormwater management programs to reduce the discharge of pollutants to the maximum extent practicable and achieve compliance with water quality standards. The 5

municipalities and 1 state agency currently covered by NPDES Phase 1 general permits include:

- King County
- Pierce County
- Snohomish County
- City of Seattle
- City of Tacoma
- Washington State Department of Transportation

In July 1999, Ecology issued an individual municipal stormwater NPDES permit to Clark County.

Ecology has been working with Phase 1 permittees to document stormwater pollution reduction and determine stormwater BMP effectiveness through monitoring and research. Ecology will incorporate the results of the Phase 1 programs and its research findings into re-issuance of the Phase 1 permits.

The NPDES Phase 2 rule regulates two classes of stormwater discharges:

- Certain regulated small MS4s located in “urbanized areas” as defined by the Bureau of Census. A “small” MS4 is any MS4 not already covered by the NPDES Phase 1 stormwater program. Additional small MS4s (outside of urban areas) may be brought into the NPDES Stormwater Program if Ecology determines that stormwater discharges into a local water body cause, or have the potential to cause, water quality problems.
- Construction activities disturbing between 1 and 5 acres of land.

Operators of Phase 2 regulated small MS4s and small construction activities are required to apply for NPDES permit coverage and implement stormwater discharge Best Management Practices (BMPs) that effectively reduce or prevent the discharge of pollutants into receiving waters. A regulated small MS4 operator’s stormwater management program should be designed in such a way as to:

- Reduce the discharge of pollutants from the MS4 to the maximum extent practicable,
- Protect water quality, and
- Satisfy the requirements of the Clean Water Act.

The NPDES Phase 2 rule outlines a stormwater management program that includes six required program elements. These six “minimum control measures” are:

1. Public Education and Outreach
2. Public Participation and Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Runoff Control

6. Pollution Prevention/Good Housekeeping

Phase 2 will apply to approximately 95 municipalities in Washington (including all “census urban areas”). Phase 2 will also apply to federal and state facilities within urbanized areas, such as military bases and public universities. Phase 2 permit coverage is required by March 2003. Ecology is the agency charged with implementing the EPA Phase 2 rule and is still in the process of developing a strategy to implement the rule.

Future Program Vision

It is the responsibility of the Department of Ecology to implement the NPDES program and issue stormwater discharge permits. Ecology will also work to integrate NPDES regulations with TMDLs and other programs consistent with the federal Clean Water Act, state water quality standards, ESA, and any additional applicable federal, state, and local regulations. Ecology provides technical assistance and is authorized to take enforcement actions to assure compliance with NPDES permit conditions.

NPDES Phase 1 permits will be re-issued with changes resulting from “lessons learned” during the initial 5-year permit period. The new permits will incorporate technical changes and a new proactive emphasis on watershed planning.

Ecology has not finalized its approach to the NPDES Phase 2 regulations. There are significant differences between Ecology’s Phase 1 permit requirements and EPA’s Phase 2 regulations. The EPA regulations are loosely-defined and flexible, with an emphasis on best management practices (both structural and non-structural) to meet the 6 minimum control measures. Ecology will be reviewing and revising EPA’s Phase 2 approach to best suit the needs and local conditions of Washington Phase 2 permittees. There is a need to integrate Phase 1 and Phase 2 programs particularly where they share common watersheds. It is unclear at this time how this will be accomplished. Subject to available resources, Ecology will help local governments develop stormwater management programs to meet the requirements of the Phase 2 permits.

The NPDES construction and industrial stormwater general permits were reissued by Ecology on November 18, 2000 with an expiration date of November 18, 2005. Ecology reissued the permits without significant modification. Ecology intended to immediately begin a permit rewrite that would more clearly state permit requirements and implement Phase 2. Ecology expected to complete the revisions before March 2003 and reissue the permits before their expiration date. However, both permits were appealed. Ecology has delayed any formal efforts to revise the permits pending outcome of the permit appeals.

Stormwater Program Customers

NPDES customers include local governments, developers, and industrial entities that are directly regulated by the NPDES stormwater permit requirements. A broad range of “affected parties” or stakeholders (other agencies, tribes, and the general public) should be considered because they also have an interest in water quality.

Education, Outreach, and Technical Assistance

EPA has information about the NPDES program on its website (<http://www.epa.gov/owm/sw>) including specific information on the Phase 1 (<http://www.epa.gov/owm/sw/phase1/>) and Phase 2 requirements (<http://www.epa.gov/owm/sw/phase2/>). A series of detailed fact sheets are available on the Phase 2 program (<http://www.epa.gov/owm/sw/phase2/factshts.htm>), including:

- An Overview of the Final Stormwater Phase 2 Final Rule
- Small MS4 Storm Water Program Overview
- Who's Covered? Designations and Waivers of Regulated Small MS4s
- Urbanized Areas: Definition and Description
- Minimum Control Measures
 - Public Education and Outreach
 - Public Participation/Involvement
 - Illicit Discharge Detection and Elimination
 - Construction Site Runoff Control
 - Post-Construction Runoff Control
 - Pollution Prevention/Good Housekeeping
- Permitting and Reporting: The Process and Requirements
- Federal and State-Operated MS4s: Program Implementation
- Construction Program Overview

EPA has created a “menu” of Phase 2 Best Management Practices to provide guidance to regulated jurisdictions on the types of practices they can adopt as part of their comprehensive stormwater management program. The guidance includes specific examples of tools that can be used by local governments to meet the NPDES Phase 2 Minimum Control Measures. The menu is available at: <http://www.tetratetest.com/bmpmanual/htmlfolder/menu.htm>. EPA has also published a series of technical storm fact sheets on individual storm water BMPs: <http://www.epa.gov/owm/mtbfact.htm>.

Ecology has written materials available to help local governments and other permittees meet the NPDES program requirements (e.g. “How to write a Stormwater Pollution Prevention Plan”). Ecology has given technical assistance and funding to local governments for preparation of education and outreach materials. Public education is a requirement of the NPDES program.

Ecology staff at headquarters and in the regional offices are available for compliance and technical assistance on NPDES program issues.

Total Maximum Daily Load (TMDL)

Program Goal

The Total Maximum Daily Load (TMDL) or Water Cleanup Plan process is established by section 303(d) of the Clean Water Act (CWA). Federal law requires states to identify sources of pollution in waters that fail to meet state water quality standards, and to develop Water Cleanup Plans to address those pollutants. A TMDL establishes limits on pollutants that can be discharged to a specific body of water and still allow state standards to be met.

Program Policies

The CWA requires states to prepare every two years a list of water bodies that do not meet water quality standards (referred to as the 303(d) list). Waters that do not meet applicable standards are identified as “impaired.” EPA has delegated implementation of the TMDL regulations to the Washington Department of Ecology. Ecology uses data collected by agency scientists, Indian tribes, other state agencies, local governments, industries, and others to develop the list, which then goes through an intensive public process. A Water Cleanup Plan or Total Maximum Daily Load (TMDL) must be developed for each of the polluted water bodies. Ecology identified 666 such water bodies in 1996. The purpose of a TMDL is to determine the amount of pollution a water body can receive and still remain healthy for its intended uses, such as industrial and agricultural uses, drinking, recreation, and fish habitat.

Since 1988, EPA has approved more than 300 Water Cleanup Plans developed either by Ecology, local governments or planning councils. In January, 1998, EPA and Ecology settled a lawsuit filed by two environmental groups because they felt EPA was acting too slowly to develop and implement Section 303(d) of the Clean Water Act (TMDLs). Under the terms of the settlement, Ecology prepared a 15 year schedule to develop plans to clean up the 666 water bodies. All TMDL plans must be approved by the EPA. The settlement agreement requires five-year reviews to evaluate the state's progress. Ecology is developing methods to streamline the development of Water Cleanup Plans.

Water Cleanup Plans have five main components:

- identification of the type, amount, and sources of water pollution in a particular water body or segment,
- determination of the capacity of the water body to assimilate pollution and still remain healthy,
- allocation of how much pollution each source will be allowed to discharge,

- a strategy to attain the allocations, and
- a monitoring plan to assess effectiveness.

Ecology oversees implementation for point sources by placing necessary limits in the NPDES discharge permits. For pollution from nonpoint sources, Ecology works with other agencies, local governments and citizens to identify and implement specific best management practices to control nonpoint pollution.

EPA published final rules to revise the TMDL regulations on July 13, 2000. However, Congress has delayed implementation of this new rule until at least October 1, 2001. EPA is reviewing this final rule and is expected to make revisions before the rule becomes effective.

Future Program Vision

The TMDL is a scientific study with the goal of a “pollution load reduction.” Load allocation (is) has been a difficult concept to implement. Municipalities and industries must take active roles in ensuring sound technical approaches to limiting pollution in stormwater discharges. The implications for local jurisdictions in terms of pollution control costs, growth management, and land use planning are significant. Ecology will be working with stakeholders to create and implement economically achievable Water Cleanup Plans.

Stormwater is a significant component of TMDLs and the future direction of the program. EPA and Ecology need to determine what pollutant reductions are practical for stormwater and other nonpoint sources. NPDES stormwater permits will need to be consistent with the waste load allocations in TMDLs. The effectiveness of various BMPs in different locales will need to be tested.

One important policy question that is being raised on the national level concerns impairments of water bodies that only occur during low-flow periods. If a water body does not meet standards during low-flow periods, a TMDL may not involve stormwater if wet-weather discharges are determined not to be part of the problem. Conversely, some TMDLs may focus primarily on wet-weather concerns, such as high bacteria levels. At the end of 2000, the U.S. Congress passed a bill (HR 828 - the Wet Weather Water Quality Act of 2000) that will require EPA to finalize a guidance document on conducting wet-weather designated-use and water quality standards reviews.

The state is in the process of revising its surface water quality standards (for more information: <http://www.ecy.wa.gov/programs/wq/swqs/>). The proposed changes to the standards would require adjustments to monitoring programs, the 303(d) listing process, and development of TMDLs or Water Cleanup Plans. There is a concern among some stakeholders that existing TMDLs do not reflect recent the proposed

changes to water quality standards, nor do they reflect physical and biological standards. However, Ecology has stated that monitoring is essential to development of a TMDL and is used in updating the 303(d) list for development of TMDLs. Monitoring is also essential to the success of TMDL implementation, and should therefore occur throughout implementation as is necessary to track the success of TMDLs. The difficulty with monitoring is that it is very people-intensive, expensive and difficult to coordinate because of the various stakeholders involved.

Program Customers

TMDL customers are its various stakeholders, including local governments, conservation districts, health districts, and other agencies (such as DNR for forest practices). For strictly non-point source plans, the general public is a very important stakeholder (as they need to implement good “housekeeping” practices).

Education, Outreach, and Technical Assistance

EPA maintains information on the national TMDL program (including copies of the regulations, policy updates, technical assistance materials, and program guidance materials) at its website:

<http://www.epa.gov/OWOW/tmdl/index.html>.

Ecology has an overview of the TMDL program on its website (<http://www.ecy.wa.gov/programs/wq/tmdl/index.html>), including fact sheets on Water Cleanup Plans

(<http://www.ecy.wa.gov/programs/wq/tmdl/briefs/index.html>).

Ecology also publishes a list of Washington’s 303(d) water bodies (<http://www.ecy.wa.gov/programs/wq/303d/index.html>), including information on the 2002 updated list

(<http://www.ecy.wa.gov/programs/wq/303d/2002/index-2002.html>).

Section 401 Water Quality Certifications

Program Goals

Section 401 of the federal Clean Water Act allows states to review proposed projects requiring a federal permit. The state's review, known as "water quality certification" or "401 certification", is meant to determine whether a proposed project will meet state water quality standards and other relevant federal and state aquatic protection regulations including wetland requirements, flood regulations, SEPA, and other water-related laws. 401 review is done primarily for projects requiring a permit or license from the Corps of Engineers, the Coast Guard, or the Federal Energy Regulatory Commission (FERC).

Regulatory Authority

In Washington, the Department of Ecology provides 401 review as part of the Clean Water Act authority delegated to the state by the U.S. EPA. This is part of the same delegated authority that allows Ecology to issue NPDES permits and to provide grant monies to local jurisdictions.

401 certification is required for a variety of projects including proposals to place fill in wetlands to allow site development, dredging and disposal activities, streambank stabilization, some salmon recovery projects, and other types of in-water work. Ecology reviews several hundred proposed projects per year, including major projects such as the SeaTac Airport expansion, the Columbia River Channel Deepening, and dam removals.

Program Policies

401 review is required only when a proposed project requires a federal permit. These projects often have the potential for significant adverse effects to water quality or salmon habitat if not done properly.

The state can approve, condition, or deny proposed projects. A 401 certification can include conditions that cover both the construction and operation of a project, and can require measures to avoid, minimize, or mitigate for impacts to aquatic resources. A certification usually includes specific Best Management Practices to address various types of impacts, notification and monitoring requirements, and performance measures that must be met.

The state's 401 decision and all conditions on a 401 certification are binding on both the applicant and the federal agency. If the state includes conditions on a 401, those conditions are required to be a part of any federal permit. If the state denies 401 certification, the federal agency cannot issue its permit.

401 review is the state's primary, and in some cases only, regulatory handle on many types of projects. Without 401 authority, the state would

have very limited ability to regulate some dredging projects, dam relicensing proposals, and other projects in which the state has a strong interest in protecting water quality. For example, the 401 provides the only state regulatory authority on federal navigation dredging projects in the Snake River, and provides the primary authority (along with Coastal Zone Consistency determinations) on other large projects such as the proposed SeaTac Airport expansion, shoreline stabilization work at Willapa Bay and Grays Harbor, and other projects significant to the state.

401 review provides the state the ability to address the following environmental and regulatory concerns related to federal decisions:

Protect water quality – 401 review determines if proposed projects will meet state water quality standards. 401 review is a key tool to help avoid and minimize water quality impacts and prevent impairment of the state's waters.

Protect salmon habitat – 401 review allows Ecology to condition projects to provide salmon habitat protection or to require mitigation for loss of habitat. 401 certification is one of the main tools available to the state connecting Clean Water Act requirements with the Endangered Species Act.

Wetland protection and mitigation – 401 certification is the only state permit that regulates wetland impacts and requires wetland mitigation.

Local involvement and coordinated decision-making – 401 provides the state a voice in federal decisions. Ecology's approach is to work closely with applicants, local jurisdictions, and the interested public to ensure these interests are reflected in the 401 decisions. Ecology's review ensures that other local and state permit conditions are incorporated into the 401 decision and that the applicant and federal agency receive a coordinated and consistent state decision.

Ecology's 401 review ensures that proposed projects are in compliance with the State Environmental Policy Act, local shoreline requirements, and fish protection measures included in Washington Department of Fish and Wildlife HPA permits. Simultaneously, Ecology reviews proposed projects for consistency with the state's Coastal Zone Management Program and compliance with the Governor's Executive Order #81-18, which directs Ecology to provide a coordinated state response to the federal government on behalf of state resource agencies. This comprehensive response provides a single, final, coordinated decision to project applicants and to federal agencies.

Education, Outreach, and Technical Assistance

In addition to issuing water quality certifications, Ecology's 401 staff also provides technical expertise to local, state, and federal initiatives on flood management strategies, mitigation banking, salmon recovery, watershed

planning and coordination, streambank protection methods, and other aquatic resource-related initiatives.

Hydraulic Project Approval (HPA)

Program Goals

The purpose of the Washington State Hydraulic Code (RCW 77.55) is to protect fish life and habitat by regulating activities that affect the bed or flow of the state's salt and fresh waters. The Washington Department of Fish and Wildlife (WDFW) has the authority to enforce the Hydraulic Code for preserving, protecting and perpetuating all fish and shellfish resources of the state. The law requires any construction activity that would affect the bed or flow of state waters to obtain a Hydraulic Project Approval (HPA) permit to ensure construction is done in a manner to prevent damage to fish, shellfish, and their habitat.

HPA permits are issued on a project-by-project basis. Stormwater is one potential condition to be considered in an HPA permit application. However, HPA's are related to several other regulations that affect stormwater management due to their common goals of protecting clean water and fish habitat.

Program Policies

Construction activities that have the potential to harm or impact fish or shellfish directly, or indirectly alter the habitat that fish and shellfish require, or that will use, divert, obstruct, or change the natural flow or bed of any of Washington's waters, including many wetlands, will require a HPA permit. The major types of activities requiring an HPA include, but are not limited to: streambank protection; construction of bridges, piers, and docks; channel change or realignment; culvert installation; dredging; gravel removal; placement of outfall structures; log jam or debris removal; and installation or maintenance of water diversions. By following the provisions of the HPA, most construction activities around water can be allowed with little or no adverse impact on fish or shellfish.

The preferred form to apply for an HPA is called a Joint Aquatic Resource Permit Application (JARPA). JARPA is also used to apply for Water Quality Certifications or Modifications from Ecology, Aquatic Resource Use Authorizations from the Department of Natural Resources, Army Corps of Engineers permits, and Shoreline Management Act permits from local city or county agencies. Copies of the JARPA form must be submitted to all participating agencies that require a permit, including WDFW.

If a proposed project has the potential to adversely affect fish habitat, it may be approved with conditions attached, such as timing and construction methods. An HPA application may be denied if WDFW determines that the project will be directly or indirectly harmful to fish life and acceptable mitigation cannot be provided. HPA's are conditioned

or denied solely for the protection of fish and shellfish based on rules promulgated under 220-110 WAC.

HPA's are an effective tool to protect fish and fish habitat from stormwater runoff originating from construction sites and other development sites, especially in conjunction with other stormwater management regulations and the other permits covered in the JARPA.

Program Customers

WDFW's "customers" in regards to stormwater are the same as for any project which affects the bed and flow of a stream. WDFW's primary interest is to protect fish life, so WDFW will be looking more closely at projects that are known to affect fish. Any projects that directly discharge to a stream, lake, or bay via an outfall would need a permit, so those applicants would be "customers".

Future Program Vision

WDFW does not have an explicit mandate for implementation or enforcement of a stormwater management programs. Generally, WDFW desires to coordinate with Ecology and local governments to address the impacts of stormwater. WDFW has authority over any stormwater project which affects the bed and flow of a water body, but there is difficulty in setting a line where an impact is close enough to a water body, or is too far. There are several unanswered stormwater policy questions in the future of the HPA program, especially in relation to recent ESA listings in the state. WDFW has been working with NMFS and USFWS on an ESA response strategy that would contribute to salmon recovery through protection of the listed species and their habitat. One approach is a Habitat Conservation Plan for the HPA program.

Education, Outreach, and Technical Assistance

WDFW has no educational materials that specifically address stormwater. They would reference any stormwater materials from Ecology or the Puget Sound Action Team that might also apply to the goal of protecting fish.

WDFW has information on the HPA program available on its website:
<http://www.wa.gov/wdfw/hab/hpapage.htm>

WDFW has published several educational materials and fact sheets related to protection of fish and fish habitat, including:

Your Impact on Salmon/Fish: A Self-Assessment

<http://www.wa.gov/wdfw/outreach/salmon/selfasmt/selfasmt.htm>

Guidelines for Salmonid Habitat Protection and Restoration

<http://www.wa.gov/wdfw/hab/salguide/salguide.htm>

There are other educational materials that have been produced by WDFW in cooperation with other state and local agencies that also refer to protection of fish through water quality management.

Underground Injection Control (UIC) Program

Program Goals

The Underground Injection Control (UIC) program, authorized by Part C of the Safe Drinking Water Act (PL 93-523 and Amendments), is designed to prevent contamination of underground sources of drinking water from the use of injection wells. The state of Washington classifies all of its groundwater as potential sources of drinking water, which is the highest beneficial use. The UIC program was established in 1984 and is administered under 40 CFR 144-146. The Washington Department of Ecology has been delegated authority by the U.S. E.P.A. to administer the program (RCW 43-21A.445).

Program Policies

Washington is a "Primacy State" with primary enforcement responsibility for UIC regulations. UIC wells are regulated under 90.48 RCW (Water Pollution Control), 173-218 WAC (Underground Injection Control Program), and 173-200 WAC (Water Quality Standards for Ground Waters of the State of Washington). The policy of the UIC program is:

- To maintain the highest possible standards to prevent injection of fluids that may contaminate ground water
- To require the use of all known, available and reasonable methods of prevention, control and treatment (AKART) to fluids and waste fluid discharges into the waters of the state.
- To protect public health and welfare by protecting the state's groundwater.

The UIC program's two main requirements are as follows:

- 1) a non-endangerment performance standard prohibiting injection that allows the movement of fluid containing any contaminant into underground sources of drinking water; and
- 2) well owners must provide inventory information. Most injection wells in Washington are relatively simple devices used to emplace fluids into the shallow subsurface under the force of gravity.

Injection wells are broadly defined to include: boreholes, sumps, dry wells, drainfields, and other subsurface disposal devices used to put fluids into the ground. Class 5 injection wells are the most common in Washington, and are generally simply constructed, shallow wells used to discharge fluids into or above an underground source of drinking water under the force of gravity. Urban stormwater runoff wells and sanitary wastewater disposal wells (multi-family and large commercial septic systems) are by far the most common Class 5 injection wells. Less common but still significant numbers of Class 5 wells are used to inject

vehicle maintenance waste fluids, other commercial/industrial wastewater streams and, in some areas, agricultural drainage. Class 5 wells that are allowed by the UIC program are those not used to inject industrial, municipal or waste fluids into an Underground Source of Drinking Water (USDW). Class 5 wells that conform to Best Management Practices and are used to inject uncontaminated stormwater or other fluids deemed appropriate by Ecology are allowed in Washington.

All existing and new Class 5 wells must apply to the UIC program for approval. The UIC program requires all Class 5 injection wells to be registered, whether or not they are used, but wells do not require a permit. Registration designates the location and use of the well, among other information. This information is entered into the UIC inventory. Registration is especially important if the well is located in a Wellhead Protection Area, Critical Aquifer Recharge Area, or other sensitive water quality protection area. It is the responsibility of the site owner or designee to keep Ecology informed of the status of the well (e.g. active, closed, change in ownership or change in use).

Subsurface disposal of stormwater is prevalent in places where there is not enough space for, or site characteristics do not allow, retention basins; where there is not a suitable surface water to receive the runoff; or where near-surface geologic conditions provide an attractive drainage zone. The use of wells to drain excess stormwater may also provide valuable flood control or aquifer recharge benefits. Stormwater drainage wells are generally vulnerable to spills or illicit discharges of hazardous substances, as they are often located in close proximity to roadways, parking lots, and commercial/industrial loading facilities. Runoff that enters stormwater drainage wells may be contaminated with sediments, nutrients, metals, salts, fertilizers, pesticides, and/or microorganisms.

The degree of risk to underlying groundwater from Class 5 shallow injection wells varies, depending on factors such as the hydrogeologic setting, well construction and operation, volume and quality of commonly injected fluids, likelihood of accidental injection, etc. For example, an injection well receiving untreated urban runoff from a commercial area and injecting it directly into an aquifer could be expected to routinely violate the non-endangerment performance standard. The use of a number of BMPs can reduce the likelihood of contamination, including siting, design, and operation BMPs as well as education and outreach to prevent misuse, and finally, proper closure and abandonment.

A determination as to whether a proposed injected fluid will be allowed under a Class 5 designated well will be based on 173-200 WAC, Washington's Ground Water Quality Standards. These standards were established, together with technology-based treatment requirements, to provide protection of existing and future beneficial uses of groundwater.

The technology-based treatment requirements include Best Management Practices (BMPs) to prevent or reduce pollution of groundwater.

Future Program Vision

Ecology has only recently started to implement the UIC program. One issue that needs to be resolved is the ambiguous definition of "waste fluid." The WAC defines "waste fluid" as:

- Any discarded, abandoned, unwanted, or unrecovered fluid(s), except the following are not waste fluids...
- Discharges of stormwater that are not contaminated or potentially contaminated by industrial or commercial sources.

Ecology plans to re-write the UIC regulation if they get approval to do so. EPA recently added new requirements that clarify the definition of regulated wells. The rule was published December 7, 1999, and became effective April 5, 2000. Ecology's UIC program will need to be consistent with the new EPA requirements. Re-writing the regulations could take up to 3 years. The public and affected stakeholders (local jurisdictions, WSDOT, etc.) will need to be involved with the process.

Ecology is trying to link the requirements of the Clean Water Act and the Safe Drinking Water Act together. The first step in this process will be to incorporate language to this affect into the new Ecology stormwater management manual.

Program Customers

The UIC program regulates owners of Class 5 injection wells, including local governments, private entities, and agencies (e.g. WSDOT) that own, operate, and/or maintain stormwater dry wells.

Education, Outreach, and Technical Assistance

Ecology has started to contact public entities in western Washington that are required to comply with UIC program requirements. Ecology has not been working with eastern Washington jurisdictions on UIC compliance due to the delay in progress on the eastern Washington stormwater management manual. However, Ecology has been working with at least one eastern Washington jurisdiction on UIC issues related to road projects. The local jurisdiction has provided injection facility inventory information to Ecology.

The following web sites and fact sheets describe specific UIC requirements and programs:

EPA

EPA's Underground Injection Control Program

<http://www.epa.gov/safewater/uic.html>

What is the UIC Program?

<http://www.epa.gov/safewater/uic/whatis.html>

Classes of Injection Wells

<http://www.epa.gov/safewater/uic/classes.html>

Class V Injection Wells <http://www.epa.gov/safewater/uic/cv-fs.html>

State UIC Programs <http://www.epa.gov/safewater/uic/primacy.html>

UIC Regulations and Guidance

<http://www.epa.gov/safewater/uic/reg&guid.html>

Region 10 UIC Program

<http://yosemite.epa.gov/R10/water.nsf/webpage/Underground+Injection+Control+Program>

Frequently Asked Questions about the UIC Program

<http://yosemite.epa.gov/R10/water.nsf/webpage/Frequently+Asked+Questions+about+the+UIC+Program>

Class V Injection Well Subclasses

<http://yosemite.epa.gov/r10/water.nsf/webpage/Class+V+Injection+Well+Subclasses>

Subsurface Disposal of Urban Stormwater Runoff

<http://yosemite.epa.gov/R10/water.nsf/webpage/UIC+Class+V+Shallow+Injection+Well+Fact+Sheets+and+Reference+Documents>

Region 10 Stormwater

<http://yosemite.epa.gov/R10/water.nsf/webpage/Storm+Water>

Ecology

Underground Injection Control in Washington State

<http://www.ecy.wa.gov/programs/wq/grndwtr/uic/index.html>

Class V Injection Well Types

http://www.ecy.wa.gov/programs/wq/grndwtr/uic/regist_form/class5_types.html

UIC Rule Summary

http://www.ecy.wa.gov/programs/wq/grndwtr/uic/uic_rule_summary/ui_c_rule.html

Several Ecology staff are familiar with the UIC program requirements and are available for technical assistance.

Endangered Species Act

Program Goal

The Endangered Species Act (ESA) is the Federal statute which requires the National Marine Fisheries Service (NMFS) (for marine species) or the United State Fish and Wildlife Service (USFWS) (for all other species) to list species that are determined to be endangered or threatened, and to subsequently protect those species and their habitat. There is no regulatory delegation to the states for enforcement of ESA. The state and local governments must meet the requirements of the Act; failure to comply could result in agency enforcement or third-party lawsuits.

Program Policies

Section 9 of the Act prohibits “take” of listed species. “Take” is broadly defined to include actions that kill, injure, harm or harass a listed species, modify its habitat, or disrupt its behavior. Certain types of take may selectively be allowed for threatened species by certain protective regulations for threatened species issued under Section 4(d) of the Act. These regulations are referred to as a 4(d) rule. NMFS recently implemented a 4(d) rule governing take of salmonids in 7 Evolutionarily Significant Units (ESU’s), including large parts of Washington. The rule broadly applies the take prohibitions, and goes on to propose exceptions to the take prohibitions, where entities are performing actions in accordance with the standards in the rule.

A group of entities from King, Pierce and Snohomish Counties are making a proposal to NMFS to specify a stormwater management program that will be incorporated into the 4(d) rule. The Tri-County group has been working to obtain 4(d) coverage for municipalities that can demonstrate that they have a stormwater program that meets the provisions in the 4(d) rule. These municipalities would be granted an exception from the take prohibition. Ecology stormwater staff have recently become involved in the negotiations between the Tri-County group and NMFS after being asked to "certify" stormwater programs as a part of determining compliance with the 4(d) rule.

Section 7 of the Act requires Federal agencies to ensure, through a consultation process, that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of their critical habitat. In cases where listed marine species (including anadromous fishes) might be affected, Federal agencies must consult with NMFS regarding the effect of their actions.

Section 10 of the Act provides for permits and exemptions for otherwise prohibited activities. This includes authority for NMFS to permit incidental taking when it is the result of carrying out an otherwise lawful

activity, as allowed by the development and implementation of a Habitat Conservation Plan. To issue the permit, NMFS must find that the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.

Future Program Vision

NMFS does not have a specific role in stormwater management; they are a regulating agency with administration of the ESA as their primary responsibility. However, stormwater is a component of NMFS' activities for salmon recovery, including the 4(d) rule.

NMFS has reviewed and supports the new Ecology stormwater management manual, but believes that the manual by itself is not enough to mitigate the impacts of development on salmonid habitat. Basin planning and better land use planning are necessary to minimize loss of native vegetation and reduce impacts on salmonids. There is long-term benefit to this approach because of its potential to protect coho streams in the future. For this approach to succeed, basin planning and land use planning must be consistent with decisions made by policy makers. The Tri-County planning group has not agreed to this approach completely, because they say it is contrary to the intent of GMA.

Program Customers

NMFS' customers are Federal agencies (e.g. Corps of Engineers, Federal Highway Administration) who have responsibility for consultations under Section 7 of the ESA, and local governments or private entities who want to get a limitation on take under the 4d rule or an HCP under Section 10.

Education, Outreach, and Technical Assistance

NMFS does not have any specific education or outreach materials on stormwater at this point, but has plans to prepare a white paper on the relationship between stormwater and ESA. For more general Technical Assistance materials, NMFS has published a Citizen's Guide to the 4(d) Rule, a guide to Section 7 implementation for actions affecting salmonid habitat, and a "Matrix of Pathways and Indicators" for evaluating the effects of human activities on salmonid habitat. In addition, NMFS refers to a report titled "An Ecosystem Approach to Salmonid Conservation" prepared by ManTech. All of these publications are available on the NMFS Northwest Region web site

(<http://www.nwr.noaa.gov/1habcon/habweb/habpub.htm>).

Growth Management Act (GMA)

Program Goals

The intention of the Washington Growth Management Act (GMA) of 1990 is to manage growth in the State's fastest growing counties through the adoption of local comprehensive land use plans and development regulations. The GMA attempts to bring regional consistency and coordination to long-range planning by reforming the decision-making processes that have been often unpredictable and disjointed.

Comprehensive land use planning under the GMA, including designating urban growth areas, assigning zoning and densities, and protecting critical areas and natural resource lands, is critical to managing stormwater and protecting water resources.

Program Policies

The planning goals of the GMA focus on issues such as urban growth, transportation, housing and economic development, as well as natural resource lands preservation and environmental protection issues. The environmental planning goals specifically address critical areas including wetlands, critical aquifer recharge areas, fish and wildlife habitat, frequently flooded areas, and geologically hazardous areas. GMA requires affected counties to adopt development regulations that preclude land uses or development deemed incompatible with those critical areas.

The GMA requires all local governments to address water quality and quantity in their planning and implementation considerations. Critical areas, including aquifer recharge areas and wetlands, need to be designated and protected by all local governments. In addition, GMA local jurisdictions are to consider water quality and quantity when planning goals are developed and carried out. Drainage, flooding, and stormwater runoff are required to be considered in the land use element of local comprehensive plans. Corrective measures and mitigation for stormwater problems are to be included in local development regulations.

Every city and county required to plan under the GMA should review and revise local comprehensive plans and policies, zoning, capital facilities plans and development regulations to ensure that development does not degrade water quality, aquatic species and habitat, and natural hydrology. Cities and counties should also incorporate provisions for managing stormwater into updates of their local shoreline master programs, and should designate appropriate land for future stormwater mitigation purposes. This review should be completed according to GMA amendment timelines using the best available science and should include:

- Designating urban growth management areas with appropriate densities and sufficient capital facilities to reduce sprawl;
- Providing sufficient vegetative buffers and development setbacks in critical areas ordinances to protect the function of riparian zones for flooding and habitat needs, shorelines, wetlands, and other sensitive areas;
- Assessing how full build-out according to the comprehensive plan will alter natural hydrology, water quality and aquatic species; and
- Incorporating measures to retain natural hydrology and processes, such as establishing goals for limiting effective impervious surfaces and preserving open spaces and forests.

The GMA recognizes that capital investments in infrastructure, including stormwater facilities, are needed to provide for growth. GMA authorizes capital facilities plans to be developed with local officials deciding appropriate financing methods and revenue sources. Communities throughout the state are facing huge infrastructure needs. Fully planning communities under the GMA have been able to prepare six-year detailed capital facilities plans, while others are collecting the information they need to make tough choices on infrastructure services they can afford to deliver. The Washington State Office of Community Development (OCD) recently completed a study of local government infrastructure needs. OCD will work with local governments to identify capital investment planning goals and funding options to pay for infrastructure services.

Future Program Vision

To meet the needs of a growing population, local communities will continue to examine their water needs and water quality issues, including stormwater management, as comprehensive plans and development regulations are revised.

In addition, the listings and potential listings of native fish under the Endangered Species Act is throwing a new light on the state's water resources issues. Legislation passed in 1998 sets out a process elected officials and citizens can use to examine water issues on a watershed basis. Funds also are being made available to local governments to aid in salmon enhancement projects.

Education, Outreach, Technical Assistance

OCD maintains general information and fact sheets on the GMA and the Growth Management Program on its web site:

<http://www.oed.wa.gov/info/lgd/growth/index.html>.

Fact sheets related to the relationship between GMA and stormwater include:

- GMA and Capital Facilities

- GMA and Clean Water
- GMA and Development Regulations
- Watershed Planning

Under the GMA, technical and financial resources are available from OCD to help local governments develop county-wide policies, comprehensive plans, and development regulations.